

upper surface of the single-crystal piezoelectric member 111 through a side surface thereof to the lower surface thereof. The first electrode 40 is connected to a conductive layer 442 of the second flexible wiring board 44, and the second electrode 50 is connected to a conductive layer 440 of the second flexible wiring board 44. Note that an exposed part is provided for each of the conductive layers 442 and 440, in consistence with each of the electrodes 40 and 50 of the single-crystal piezoelectric member 111.

Page 36, please amend the paragraph at lines 17 to 23 as follows:

Compared with the ultrasonic probe 50 shown in FIG. 10, a gap is eliminated between the conductive layer 442 and the conductive layer 440 of the probe 51 shown in FIG. 11. Therefore, with this structure, it is possible to prevent breakdown of the single-crystal piezoelectric member 111 which can be caused by pressed adhesion.

IN THE CLAIMS

Please amend Claims 8-10 as shown in the attached marked-up claims to read as follows:

8. (Amended) An ultrasonic probe comprising:
a plurality of piezoelectric members formed of solution-based single-crystal containing at least plumbum titanate, and arranged like an array;
a first electrode formed on a lower surface of each of the piezoelectric members;
and
a first flexible printed wiring board having a plurality of pattern wires each having a width smaller than a width of each of the piezoelectric members in an array direction, extending in a longitudinal direction of each of the piezoelectric members, and configured to lead and connect an electric wire from each of the first electrode to an ultrasonic diagnosis apparatus body.

9. (Amended) The ultrasonic probe according to claim 8, further comprising:
a second electrode formed on an upper surface of each of the piezoelectric members;
and

a second flexible printed wiring board having a plurality of pattern wires each having a width smaller than a width of each of the piezoelectric members in an array direction, and configured to lead and connect an electric wire from each of the second electrode to ground.

10. (Amended) A method of manufacturing an ultrasonic probe, comprising:
a first step of adhering a flexible printed wiring board and a single-crystal piezoelectric member to each other, the flexible printed wiring board having conductive layers each having a predetermined width, which are patterned in parallel on a resin member;
and

A 11
Concl a second step of cutting the flexible panted wring board and the single-crystal piezoelectric member together, along and between the conductive layers, thereby to form a piezoelectric vibration element array having a width smaller than a width of each of the conductive layers.

Please add new Claim 11 as shown below:

11. (NEW) An ultrasonic probe comprising:
a plurality of piezoelectric members formed of solution-based single-crystal containing at least plumbum titanate, and arranged like an array;
A 12 a first electrode formed on a lower surface of each of the piezoelectric members;
a first flexible printed wiring board having a plurality of pattern wires each having a width smaller than a width of each of the piezoelectric members in an array direction, extending in a longitudinal direction of each of the piezoelectric members, and configured to lead and connect an electric wire from each of the first electrodes to an ultrasonic diagnosis apparatus body;